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Economic Development Committee

Sustainability Sub-Committee

Helping Save the Earth by:

- Community Awareness of environmental impacts
- Identifying efficiency and cost reduction measures available to the community
- Providing guidance and information on where to get available services and expert help
- Organizing efforts to implement environmental friendly measures for our community
- Helping the Milton community do its part in a world wide effort to minimize climate change due to current environmental impact measures

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Presents

Current Environmental issues of today

How we as a community can be part of the solution

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Help Save The Earth

What will be covered in this presentation:

What is Happening & What Can We Do?

- You've heard it all before
  - However, we plan on presenting the issues a little differently
- Why is this discussion different
  - Skepticism is healthy, we are entitled to our opinions
  - Identification of the facts & objective evidence on the issue
- Review the Highlights of the Issues
  - Resource Consumption, Pollution, Rising Temperatures Consequences of climate Change (Economic & Environmental Impacts)
- Discuss possible actions
  - Getting more efficient, Adapting to change, Reducing effects on the environment
- Discuss Specific Actions
  - Educate the community on the issue & what can be done to Reduce the environmental & Economic impacts

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Highlights

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What is being said:

The Earth is in Trouble

The results of environmental changes that are taking place.

- Rising Temperatures
- Rising CO_2 Levels
- Rising Sea Levels

How are we influencing the environmental changes

- We are polluting the air and waters
- We are consuming our resources at an alarming rate

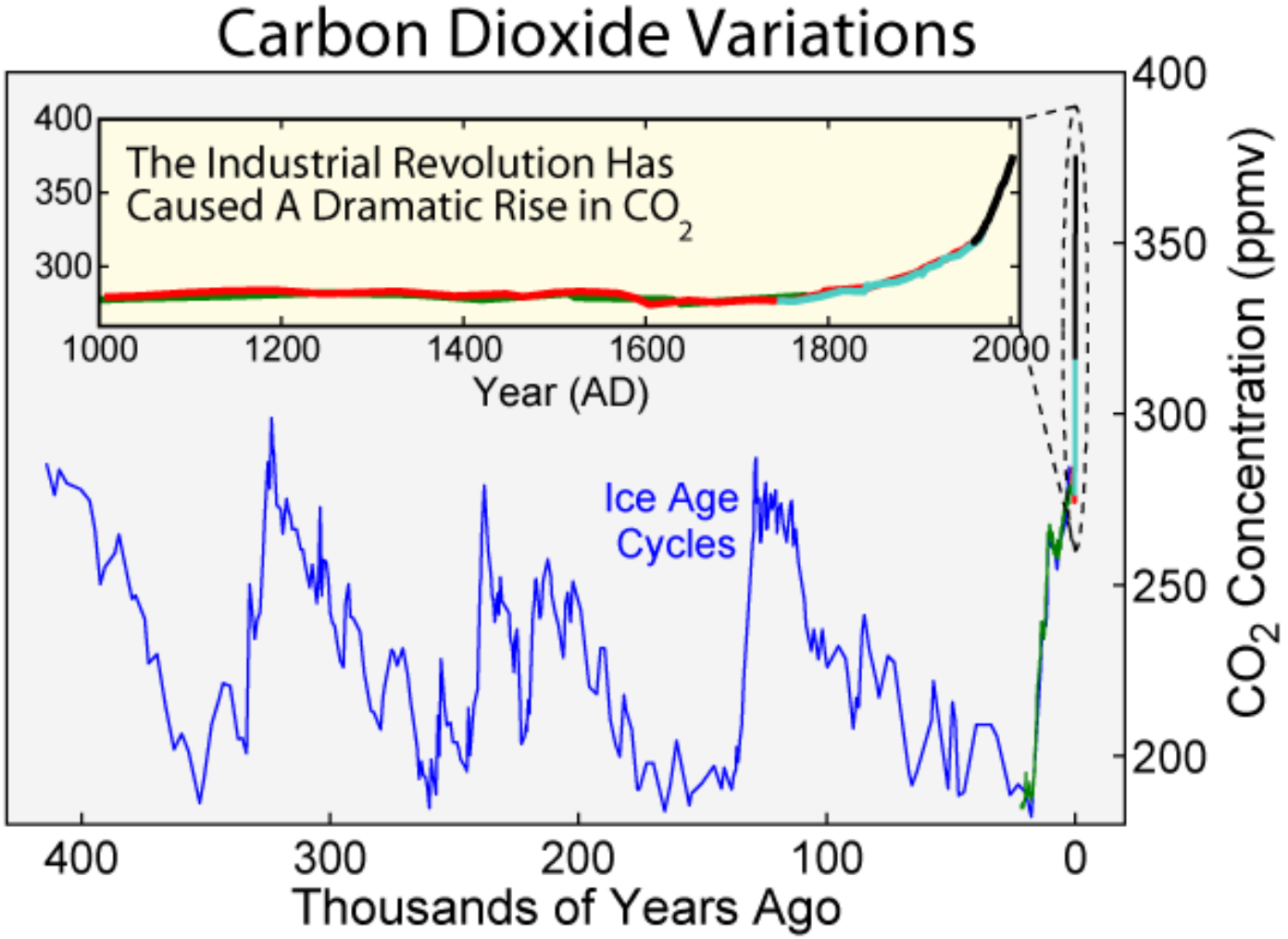
Evidence is apparent in the Oceans

- Trash in the Ocean
- Beach Erosion
- Loss of Coral reefs

Highlights

Rising CO_2 Levels

- Graphs of Co2 Levels



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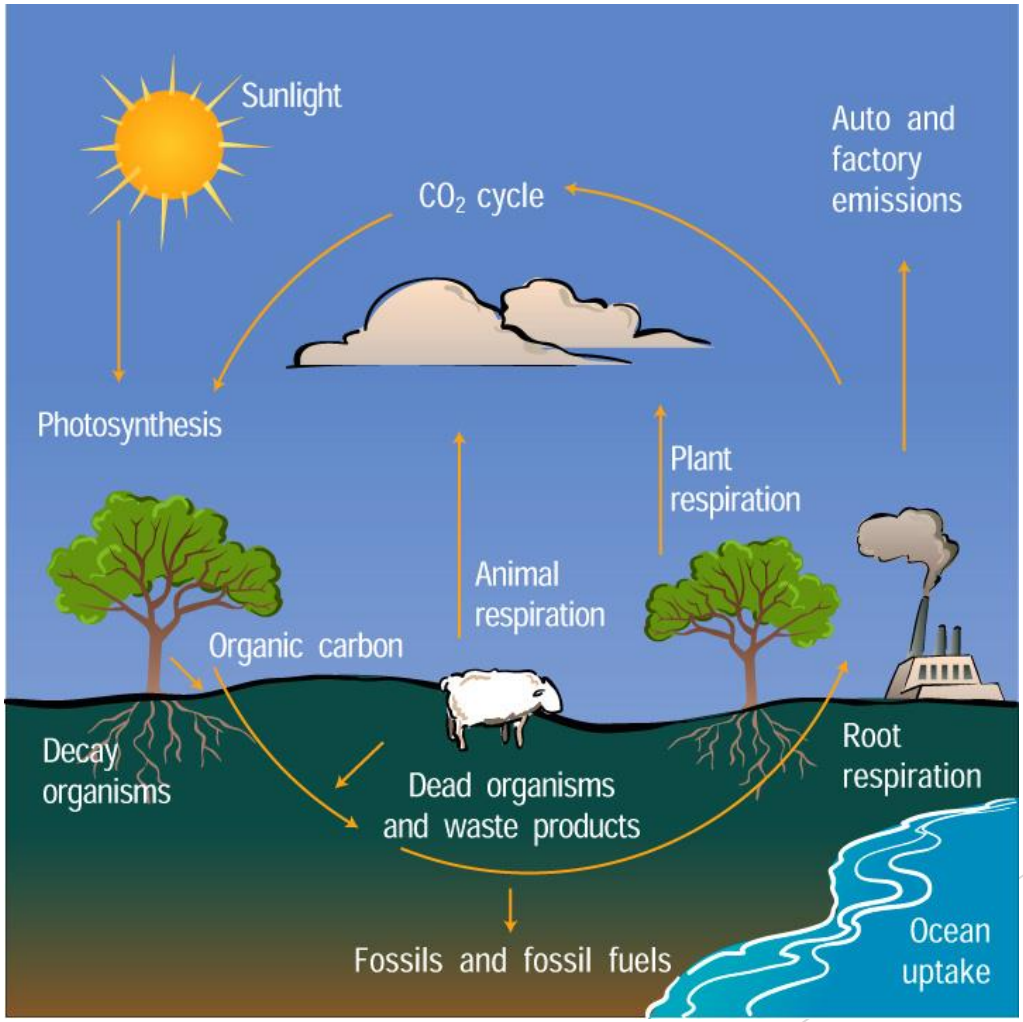
Highlights

CO_2 Cycle is being affected

- Rising CO_2 - Factory, Transportation, Energy Plant Emissions
- Deforestation



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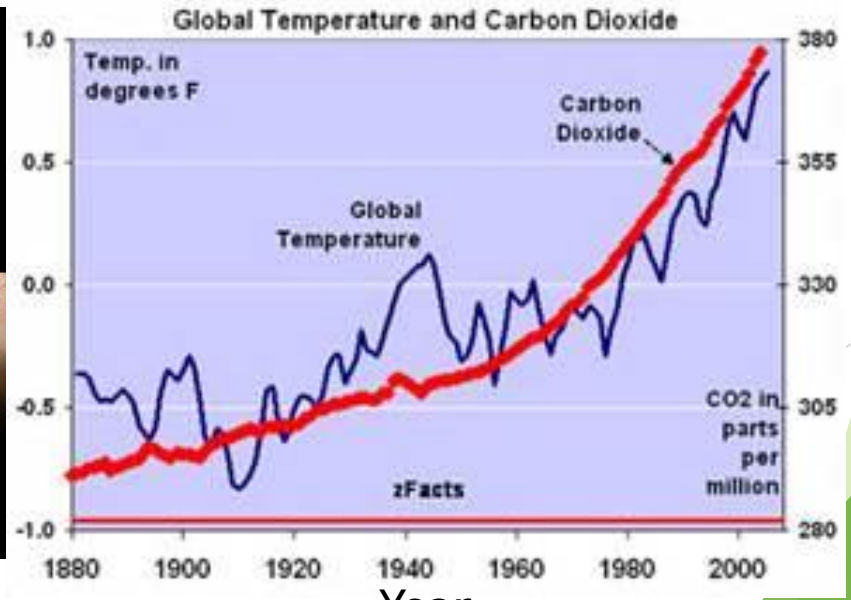
Highlights

Rising Temperatures

- The best estimate is that about 50% of the observed global warming is due to greenhouse gas increases.
- 2015 was the hottest year ever
- Climate scientists are coming to the conclusion that human activity is causing the climate to change
- Studies indicate that recent years, the 1990s, and the 20th century are all the warmest, on a global basis, of at least the last 1000 years.

National Climatic Data Center NOAA – National Oceanic & Atmospheric Administration



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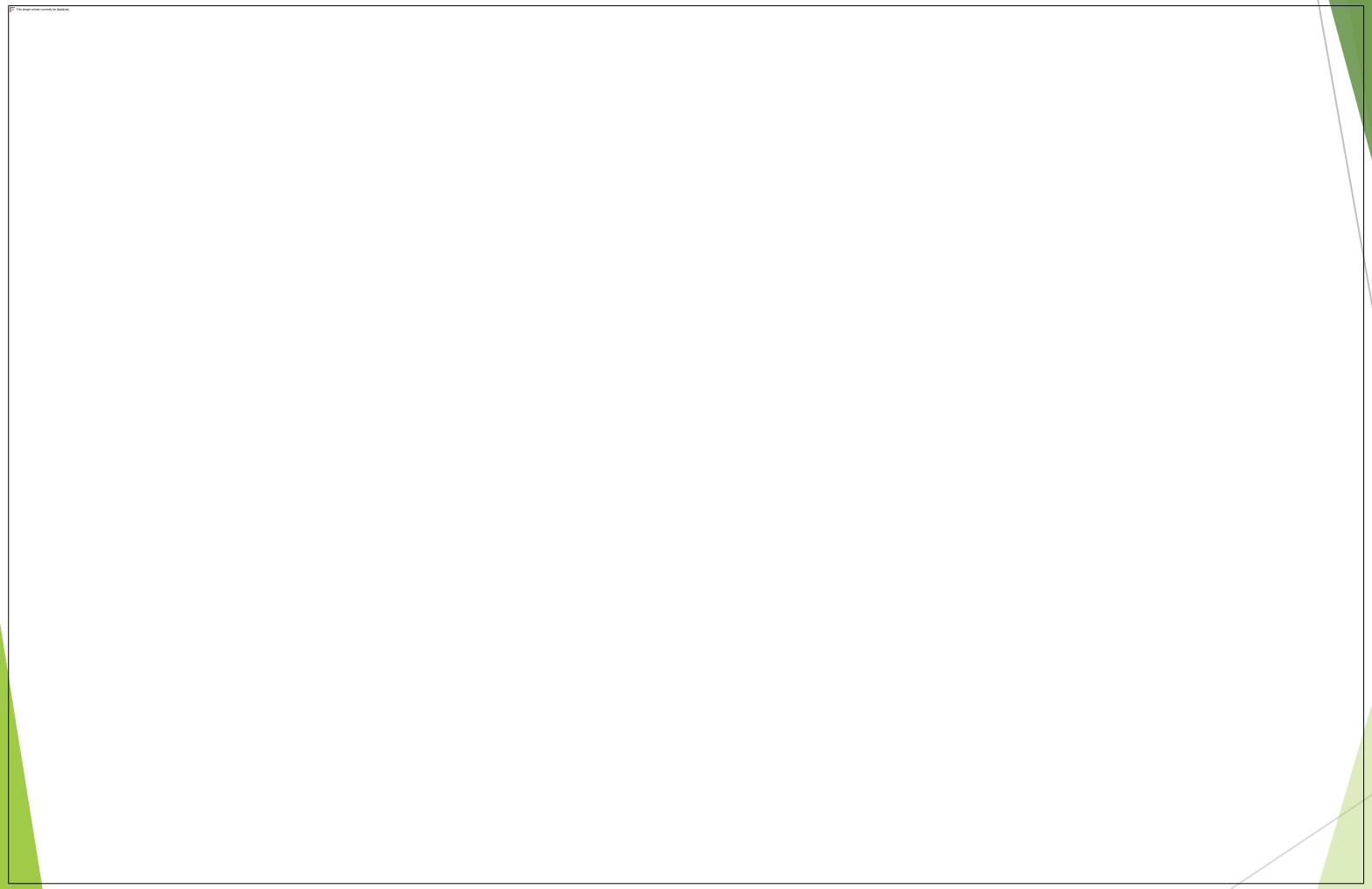

Gases other than CO_2 make up nearly 20% of U.S Greenhouse gas emissions

Highlights

Other Greenhouse Gases

Methane: Similarly to CO_2, the majority of methane emissions come from the energy sector. Agricultural emissions and waste management emissions are also large sources of methane.

Nitrous oxide (N_2O): The largest source of N_2O emissions is agriculture, primarily from soil fertilization and animal waste management.

High-GWP gases: Common gases with high global warming potential include **hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).** These gases are commonly used as refrigerants, aerosols, and solvents. Although concentrations have decreased since 1990, total emissions of high-GWP gases have continued to increase steadily since 1990. This is due to increases in HFC use; HFCs are being used to replace chlorofluorocarbons and other ozone-depleting compounds. High-GWP gases are much more potent than CO_2 in terms of their abilities to trap heat in the atmosphere, and persist in the atmosphere for thousands of years

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Highlights

Consequences of rising Temperatures

- Melting Glaciers / Ice Caps and disappearing sea ice.
- Sea level rise
- Effects on species migration
- General climate change, Changing weather patterns
- Severity of Storms

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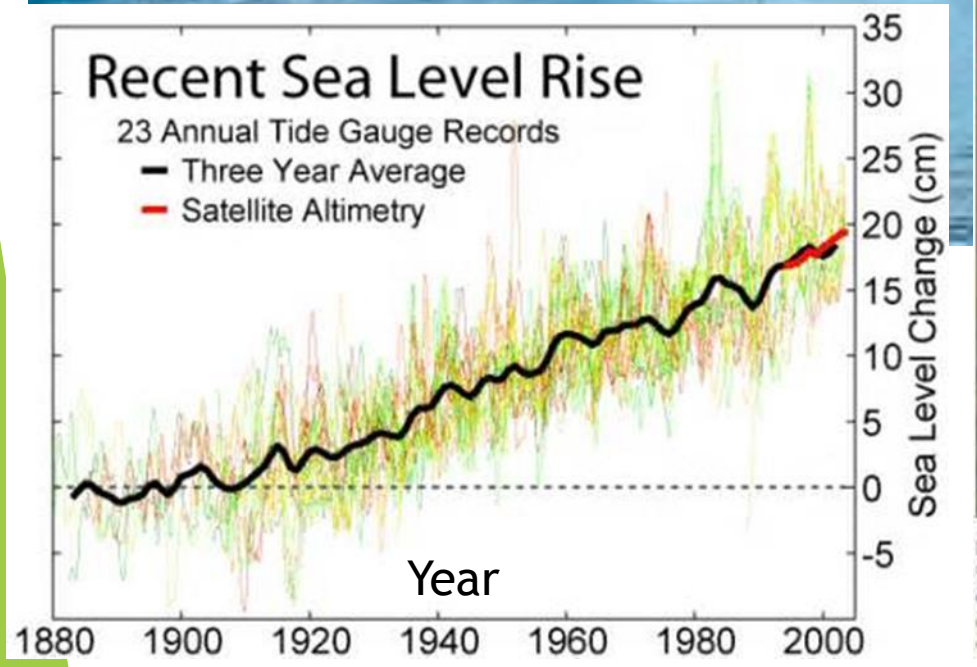
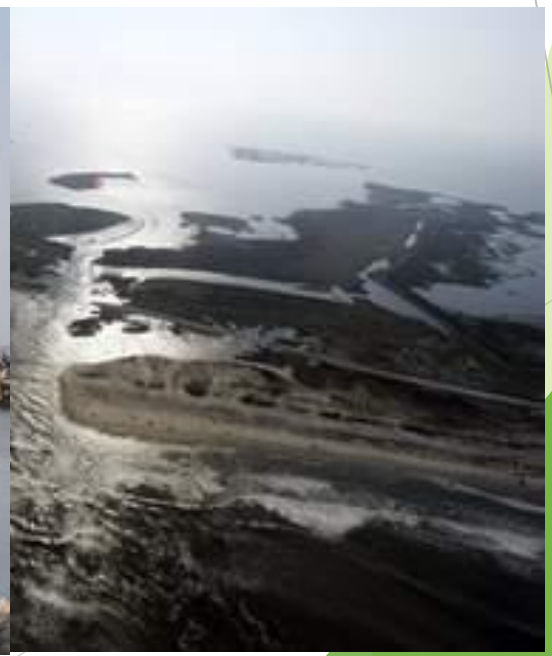


Fig. 1. Spatial extent of 1- and 6-m potential future sea-level rise along the East and Gulf coasts of the United States and for selected major coastal municipalities. Elevation and connectivity to the ocean determine sea-level rise extent. Proportion of land area within municipalities coincident with sea-level rise extent determines percentage of susceptible area. The U.S. Geological Survey and Census Bureau provided elevation and municipality boundary data, respectively.

Highlights

Consequences of climate change

- Economic Costs (health, property, and environmental clean up
- Environmental Impact
- Social – Areas / Communities effected by Change
- Agriculture Impacts – Weather pattern changes
- Forced Life Style Changes due to climate economic impact & area displacements



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Highlights

Consequences of climate change

Short Term - Next 20 years

- Weather
- Seal Level Rise Consequences

Long Term – Next 50 years

- Population Displacements
- Agricultural Impacts
- Sea Level Rise Impacts

THE WORLD BANK

Long Term – Next 100 years

- Nobody is talking about beyond 100 years
- What will the projected population Displacement be?
- How much Cost will there be for mitigation?
- How much land will be lost due to rising sea levels?

A new **World Bank report** shows that climate change will make **water** supply more erratic and uncertain, with severe consequences on economic growth and political stability

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Climate change is our problem as individual, as a family, as a community, nation and world body

- There are consequences of not acting now
- This generation has to start the solutions
- Our obligation is to the future generation

What can you do about it – Plenty…….

Highlights

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What can we do?

Go back to the 1940s?

- Not going to happen

Get off the Carbon Cycle

- We have been too slow to stop the climate change momentum. (Resistance to change, World Population growth)
- The market will determine how fast we move

Get more efficient

- We are starting, some progress has been made

This is an area where individuals can have an impact

Highlights

What can we do?

Reduce the population

- This is happening but too slowly
- Cannot be legislated or regulated. Look at China's example

Adapt to the change

- We are starting – Educated nations tend to have decreasing birth rates
- Adaption / migration projects are already in work.
- Progress is too slow and great strides and effort has been made only when disaster forces us to take notice.

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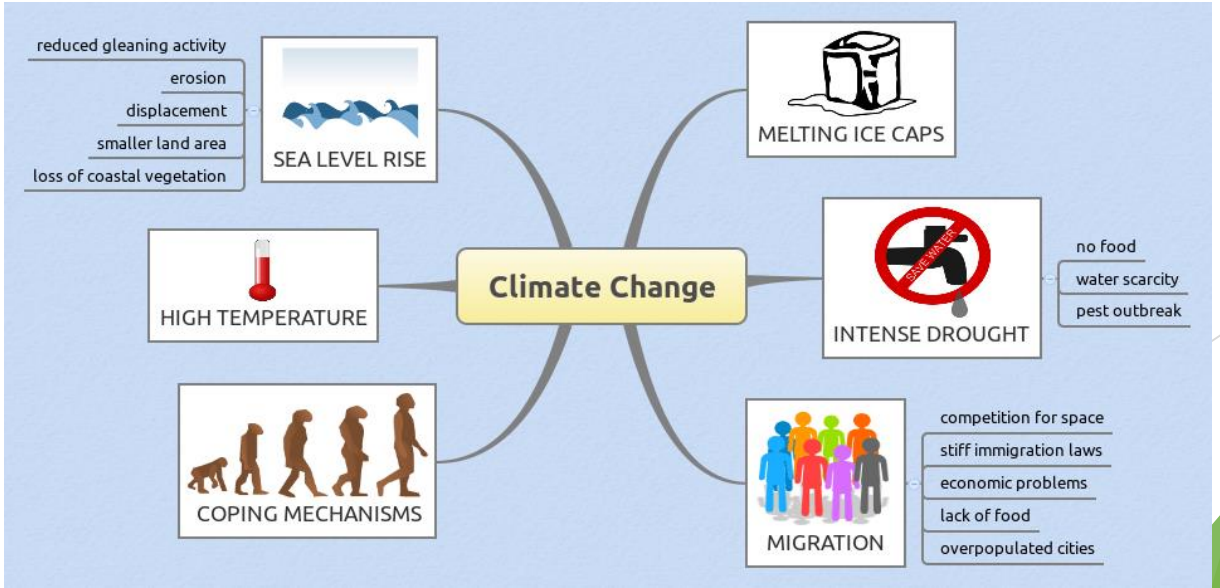
Highlights

What can we do?

- Engineer our way out of the problem
  - Geoengineering is generally frowned upon.
  - We should be spending R&D money to explore possibilities.
    World governments should be funding the R&D
    Individuals can influence the governments to take action
  - It's complicated. There are climate change winners and losers.

- Get involved and do whatever we can?
  - Grass roots involvement can change public and lawmakers opinions
  - Every little bit helps, everything adds up.



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What can we do as individuals?

- Every little bit helps
- Conserve Energy
- Have your roof painted white
- Install Solar Panels
- Avoid Plastic
- Conserve Water
- Plant Native Plants
- Recycle & Reuse Plastic Bottles

All these conservation measures will also save your money and will be help to you do your part to reduce the impact on our Environment.

Highlights

What can we do as individuals?

- Get Energy Audit for your home
- Insulate your home
- Control Thermostats
- Install efficient appliances
- Get efficient Cars
- Drive less
- Take advantage of programs that are available Through Delmarva Power, DEIPL, Etc.

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Sustainability

- Is satisfying current needs without sacrificing future Well-being through the balance pursuit of ecological and economic welfare.

Highlights

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Join us to help make Milton Green - Individually or as an organization

- Get the word out
- Start by doing small things
- Changing minds. If only to convince people that what they do can make a difference
- Monitoring the river
- Maintaining or Web Site
- Manning our booth at events, distributing information

We want to make Milton known for its Sustainability Initiatives

We are looking for assistance from other individuals and organizations
Please join the effort!

Closing Thoughts:

We are passengers on Spaceships earth
There is no way to get off
We are fouling our nest and it is getting worse

Help Milton be part of the Solution

Contact the Milton Sustainability Committee to see how you can help and get involved.

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